

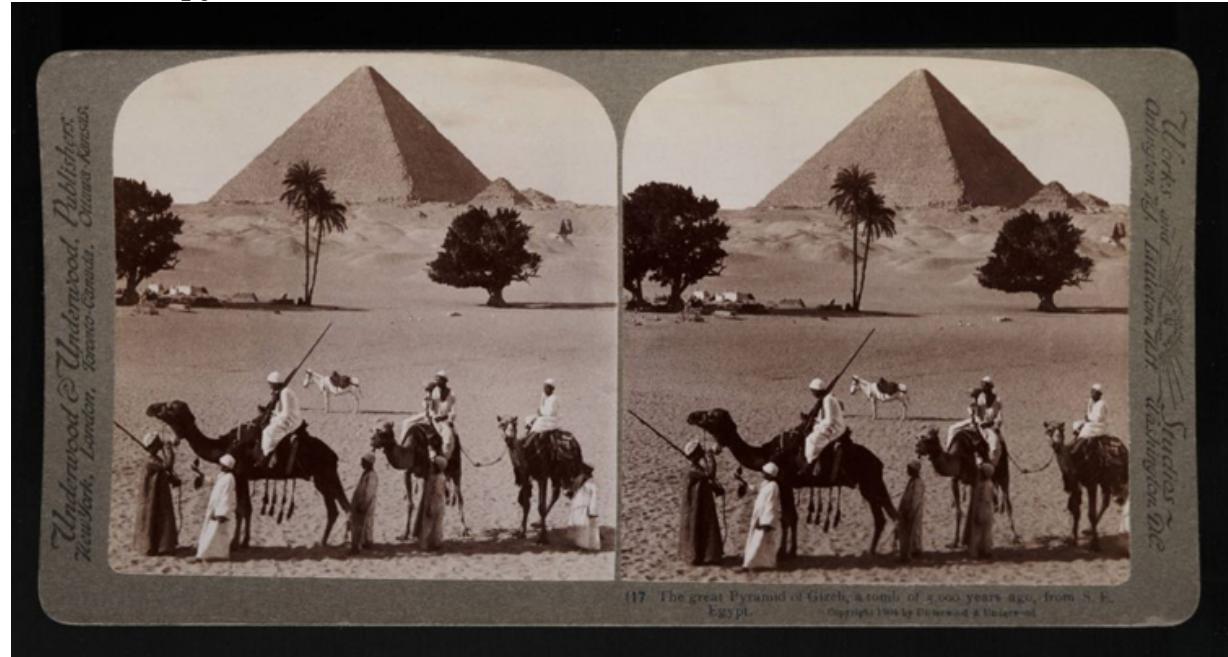
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A Brief History of Stereographs and Stereoscopes

Stereographs (also known as stereograms, stereoviews and stereocards) present three-dimensional (3D) views of their subjects, enabling armchair tourists to have a “you are there” experience. The term “stereo” is derived from the Greek word for “solid,” so a “stereograph” is a picture that depicts its subject so that it appears solid. Stereographs feature two photographs or printed images positioned side by side about two and half inches apart, one for the left eye and one for the right. When a viewer uses a stereoscope, a device for viewing stereographs, these two flat images are combined into a single image that gives the illusion of depth.

Stereoscopes work the way that vision works. Since our two eyes are positioned about two inches apart, we see everything from two slightly different angles, which our brain then processes into a single picture that has spatial depth and dimension. In 1838, Charles Wheatstone published a paper that provided the scientific basis for stereography, showing that the brain unifies the slightly different two-dimensional images from each eye into a single object of three dimensions. Wheatstone’s early stereographs were drawings rather than photographs.

The Great pyramid of Gizeh



"The Great pyramid of Gizeh, a tomb of 5,000 years ago, from S.E.

Egypt." Stereograph. NY: Underwood and Underwood, 1908. From [TIMEA](#). (August 19, 2006). <http://hdl.handle.net/1911/5586> Note how only half of the tree on the left side of the left frame is visible, while two-thirds of the same tree can be seen in the right frame.

Between the 1840s, when stereographs were first made, and the 1930s, when they were supplanted by movies and other media, millions of stereographs were produced. In the late 1830s and 1840s, scientists such as Niépce, Daguerre and Talbot created the processes that made photography possible and these were soon used to produce stereographs. In 1850 Sir William Brewster invented an inexpensive viewing device for stereographs called the lenticular stereoscope. This device is a closed box that has one or two openings for light; two lenses are located on the top and enable the viewer to see a three-D image on the floor of the box.

In 1851, stereographs captured the public notice when they were displayed at the Great Exhibition and praised by Queen Victoria. Businesses such as the London Stereoscopic Company quickly developed technologies for mass-producing stereographs; indeed, between 1854 and 1856 the company sold over half a million stereographs. In America, doctor and writer Oliver Wendell Holmes helped to popularize stereographs by inventing a hand viewer and promoting the creation of stereograph libraries. Ultimately stereoscopes ranged from small, inexpensive hand-held devices to large pieces of furniture that could display a changing series of up to 100 stereographs.

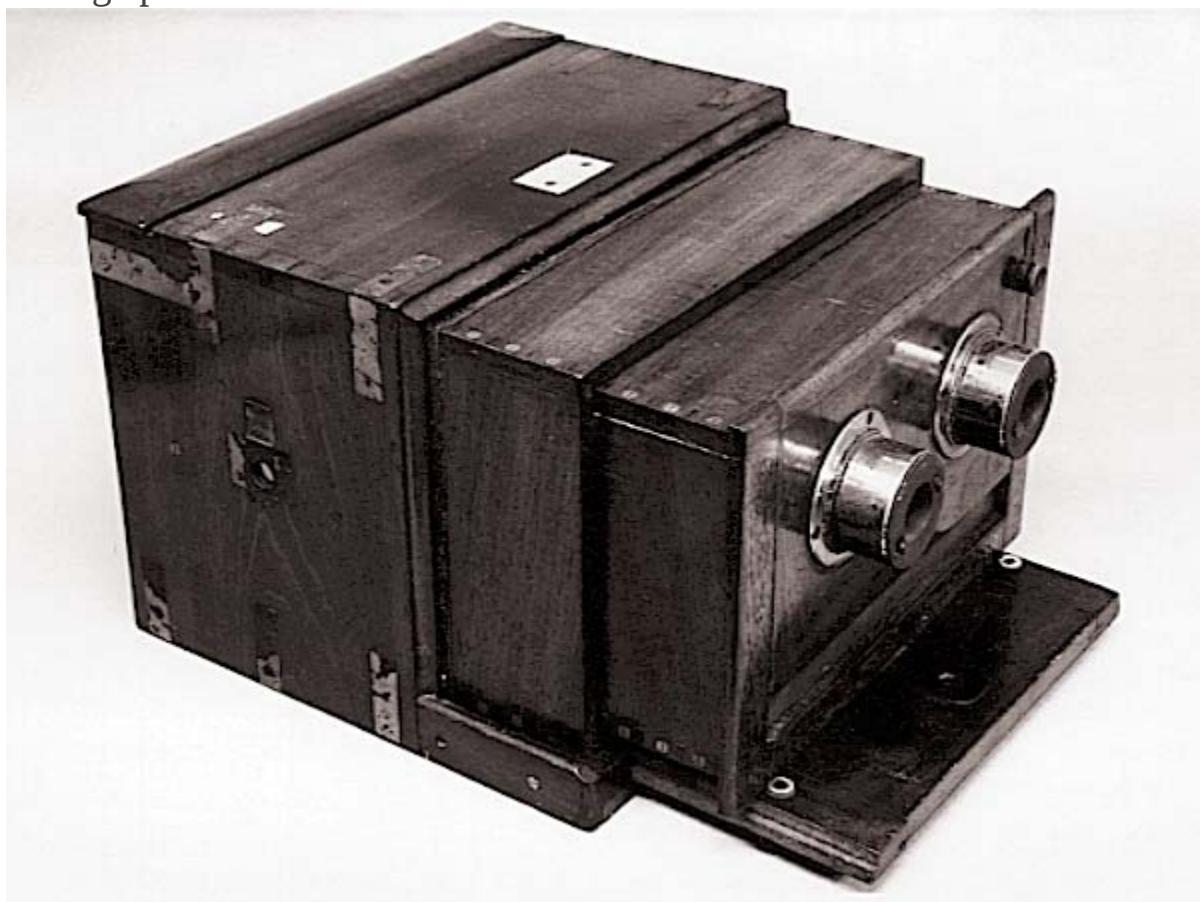


“A reproduction Holmes stereoscope.” “Stereoscope.” Wikipedia. 11 August 2006 <http://en.wikipedia.org/wiki/Stereoscope>

Stereographs came in a variety of formats that reflected the era and region in which they were produced. At first stereotypes were produced as daguerrotypes (printed on copper) and ambrotypes (printed on glass), but stereographs became much more common once they began to be printed on card stock, which was less expensive and more stable. Paper stereographs

mounted on flat cards were generally produced between 1857 and 1890, while those mounted on a “warped” gray card were generally produced between 1892 and 1940 (Darrah, 10-11). Early stereographs measured approximately 3 1/2 x 7 inches, but during the 1870s larger sizes emerged, including the 4 x 7 inch “cabinet,” the 4 ½ x 7 inch “deluxe,” and the 5 x 7 inch “imperial” cards. By the late 1850s, the standard thickness of cards was .04 inches. Curved mounts became prominent in the 1880s, after B. W. Killburn found that a mount with a slight curvature could increase the illusion of depth.

Initially photographers created stereographs by taking one photograph, then slightly shifting the camera to a new position. Cameras with multiple lenses were eventually used, although some photographers employed a rig with two cameras. (For more on stereograph cameras, see <http://stereographer.com/cameras.html>). Photography for stereoscopes required the photographer to position the camera carefully to get the best vantage point.



"Sliding Box Binocular Stereoscopic Camera, ca. 1865 ." From the [Museum of the History of Science, Oxford](#)'s exhibition "The Technology of Photographic Imaging"

<http://www.mhs.ox.ac.uk/cameras/index.htm>. This camera, manufactured by W. W. Rouch of London, uses two single landscape lenses of 100 mm focal lengths.

Between the 1840s and the 1920s, stereographs served as an important method of entertainment, education, and virtual travel—predecessors to contemporary forms of media such as television and movies. As Burke Long argues, "Mass-produced and relatively cheap, the integrated system of mechanical viewer and photographs became fashionable for classroom pedagogy, tourist mementos, and parlor travel to exotic places of the world" (90). People viewed stereographs at homes, schools, and churches, gazing at images documenting almost every subject imaginable from astronomy to zoology. According to stereograph collector and historian William Darrah, stereographs were used to teach millions of American children about geography, natural history, and a range of other subjects (50). Many in the nineteenth century embraced photography as a medium that, unlike other arts such as painting, presented the "truth" through exact rendering of a scene. Stereographs seemed even more real and more engaging by simulating three dimensions. Oliver Wendell Holmes called stereographs "sun sculptures" and commented, "All pictures in which perspective and light and shade are properly managed, have more or less the effect of solidity; but by this instrument that effect is so heightened as to produce an appearance of reality which cheats the senses with its seeming truth" (16).

By the 1920s, movies and printed half-tone images supplanted stereographs as the leading photographic medium. However, 3-D imaging experienced a resurgence in the 1950s, when the ViewMaster, a stereoscopic device which used a round disc that displayed seven images, was popularized. Initially the ViewMaster was sold as a tourist souvenir, but eventually it became more of a children's toy—indeed, it was named one of the top 50 toys of the twentieth century. A few contemporary artists use stereography as an

expressive medium, while people now don stereoscopic glasses (and data gloves) to explore computer-generated 3D virtual reality environments.

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Major US Stereograph Publishers

Researchers find it useful to know about the publishers who produced stereographs, since examining the publication history of a stereograph can tell us much about how it was marketed, distributed, and consumed.

Typically the photographers who captured the images were anonymous. Although some photographers published and distributed stereographs themselves, several large publishers dominated the stereograph market. At the turn of the twentieth century, the major US stereograph publishers were Underwood and Underwood, Keystone View Company, and H.C. White Company.

Companies used a variety of means to sell stereographs. Traveling sales agents sold stereographs, as did drug stores, novelty stores, and book stores, and catalogs. Stereographs were included as promotions with products or were given away by stores to customers who spent a certain amount of money. Church organizations gave Sunday school students Holy Land stereographs to recognize their attendance or achievement. To appeal to the education market, some publishers printed captions on the backs of stereographs. Underwood began including legends in 1897, while Keystone did so around 1902 (Darrah 54-55). Legends could be as long as 450 words long; often they were stories that were meant to educate or amuse children. These captions mediated viewers' experiences of the depicted scenes, telling them what they were seeing.

Underwood and Underwood

Founded in 1882 in Kansas, USA, Underwood and Underwood first distributed and sold stereographs produced by others, but they eventually hired their own photographers to take pictures around the world. In the early 1900s, Underwood brought out the "boxed set," typically a series of 100 cards that were selected to simulate a guided tour of a country. These sets were accompanied by a guide-book written by an expert that explained each scene. Underwood attempted to represent many facets of the country depicted, including views of people, places, industry, historic sites, and natural resources. In addition, customers could purchase a patented map system that pinpointed where each stereograph was shot and what was

included in the image. An advertisement for Underwood's boxed sets promoted their educational value: "...Tours are carefully selected by persons of wide experience and liberal education.... Schools and public libraries are turning more and more to the stereoscope to put students and readers in touch with the actual places of which they are studying" (qtd. by Evans). The boxed sets were so popular that the company produced tours of a number of countries, including Egypt, Ceylon, Japan, and India. By 1901, Underwood and Underwood produced 300,000 stereoscopes a year and had established itself as the leading US stereograph firm. In 1920, as the market faded, the company stopped producing stereographs.



"Cairo, home of romance, N.W. from Saladin's citadel to Nile, Egypt."
Stereograph. NY: Underwood and Underwood, 1908. From [TIMEA](#).
(August 19, 2006). <http://hdl.handle.net/1911/5579>

Keystone View Company

In 1892, amateur photographer B.L. Singley distributed a series of stereoviews documenting a flood. From this small beginning, Singley built one of the leading stereograph firms of the era. Prior to 1897, Singley himself photographed all of the Keystone views, but in 1898 the firm hired professional photographers to travel the world taking pictures. Keystone distinguished itself by pursuing the educational market, preparing teachers' manuals to accompany stereograph collections and appointing a prestigious editorial board to select and comment on stereographs. In a sense, stereographs were a predecessor to filmstrips and other forms of educational media, used to teach subjects such as what the *Stereoscopic Encyclopedia* (1st edition 1906, 10th edition 1926) termed "racial geography, peoples of all lands" and "literary subjects and settings" (Darrah, World 50). Keystone, which published over 43,000 titles, stopped regular production of stereographs in 1939, but filled individual orders until 1970.



"A Mingling of Orient and Occident -- the Muski, Liveliest of the Real Streets of Cairo, Egypt" Stereograph. Meadville, PA: Keystone View Company, 1908. From [TIMEA](#). (August 19, 2006).

<http://dspace.rice.edu/handle/1911/5570>

H.C. White Company

Founded in 1899, H. C. White Company ultimately produced 12,800 titles. According to Darrah, “The company boasted that in seven years its chief photographer had traveled 140,000 miles and had visited all the continents” (World 51).



“View of Cairo, Egypt, from Stereograph” Postcard. Topeka, Kansas: Arthur Capper, 1901. From [TIMEA](#). (August 19, 2006).

<http://dspace.rice.edu/handle/1911/5693>

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Egypt through the Stereoscope: Stereography and Virtual Travel

Stereography and Travel

According to stereography's advocates, stereographs allowed people to "tour" foreign lands without the expense and hassle of actually going there. Moreover, virtual tourists could look at the sites as often and as long as they liked, and three-dimensional imaging added to the sense of reality. As Oliver Wendell Holmes wrote, "the sights which men risk their lives and spend their money and endure sea-sickness to behold,--the view of Nature and Art which makes exiles of entire families for the sake of a look at them, and render 'bronchitis' and dyspepsia, followed by leave of absence, endurable dispensations to so many worthy shepherds,--these sights, gathered from Alps, temples, palaces, pyramids, are offered you for a trifle, to carry home with you, that you many look at them at your leisure, by your fireside, with perpetual fair weather, when you are in the mood, without catching cold, without following a valet-de-place, in any order of succession,--from a glacier to Vesuvius, from Niagra to Memphis,--as long as you like, and breaking off as suddenly as you like" (38-39). Not only does stereography make "travel" more comfortable and convenient, but, Holmes implies, it also allows the viewer in a sense to "own" the scene, to place it into a viewer and stand gazing over it (Fowles 91). Note that Holmes uses Egyptian sites such as the pyramids and Memphis as examples of important places for travelers to experience, revealing the significance of Egypt as a place for virtual travel.



“The entrance to the Great Pyramid, the sepulcher of Khufu (in north face), seen from below.” Stereograph. Breasted, James Henry. *Egypt through the Stereoscope* (NY: Underwood and Underwood, 1905, 1908). From [TIMEA](#). (August 19, 2006).
<http://dspace.rice.edu/handle/1911/5593>

By making images of foreign cultures available cheaply and with seeming realism, stereographs enabled mass “virtual” tourism. Stereographs could serve as mementoes of travel, or substitutes for it. Among the most popular locations for armchair travelers to venture via stereography were the Holy Land and Egypt, since these places had special religious significance and featured important archaeological sites, some recently excavated. As William Darrah notes, “A steady stream of stereo views depicting the classic antiquities of Rome, Naples, Athens, Egypt and the Holy Land, together with those of the cathedrals, public buildings and palaces of the tourist centers of Europe provided mementos of the journey and vicarious adventure for those who had to remain at home” (17). Companies organized stereograph collections into “tours,” capturing the major sites and simulating travel to them. Stereographs helped to define the public’s understanding of foreign countries and expectations of what travel there

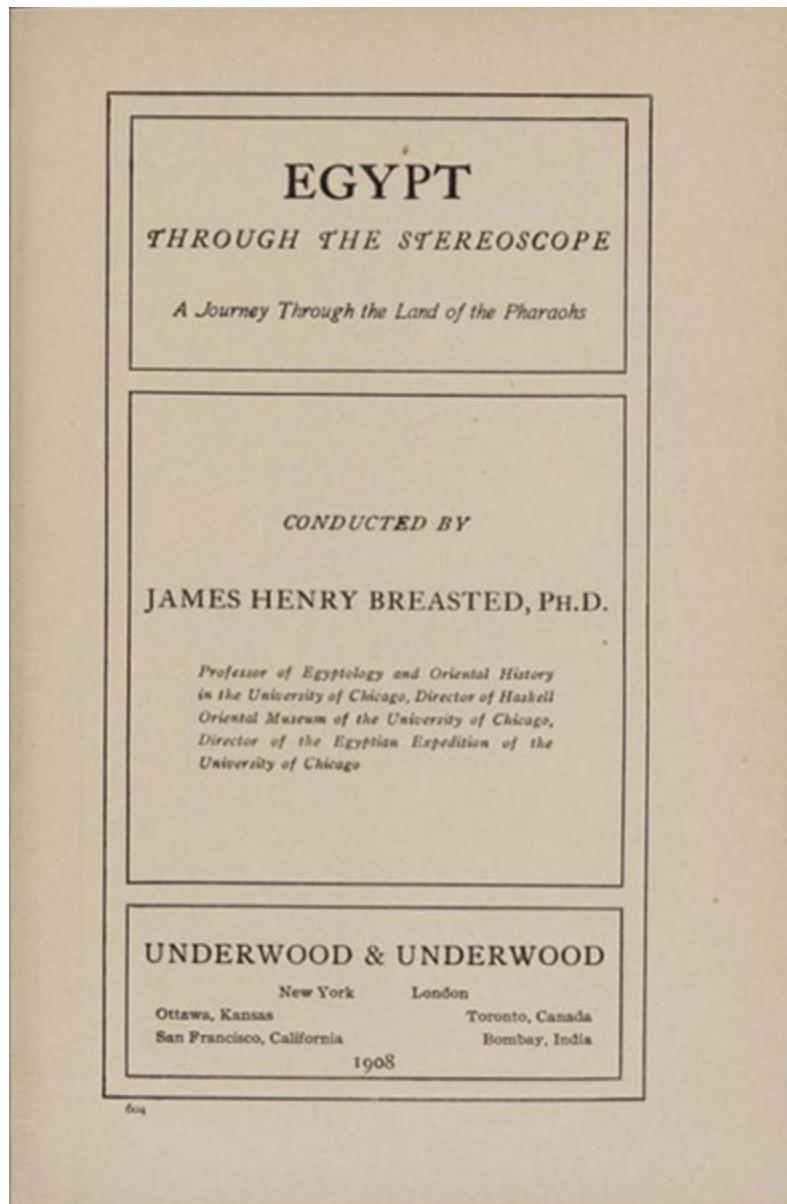
would be like. As Steven Hoelscher argues, “Acquiring photographs gives shape to travel as it informs what the viewer should see, how it should be seen, and when it should be seen--all in a matter-of-fact and seemingly “unmediated” way” (549). Just as guidebooks offered a mediated journey through foreign countries, so stereographs presented travel from carefully chosen perspectives. Sometimes working with “experts” on the countries represented, stereograph photographers and publishers determined what sites to photograph, what perspective to take, and how to frame the shot.

Around the same time that photography was being established as a leading form of art and communication, Egyptology, the study of Egyptian civilization, was becoming an important field of study. Egyptologists used photographs to document and study their findings, while photographers helped to feed the public interest in Egypt with their stunning views of the country’s monuments, artifacts, historic sites and daily life. In the late 1850s, photographer Francis Frith toured Egypt and produced **Stereoscopic Views of the Holy Land, Egypt and Nubia**. Reviewing Francis Frith’s exquisite stereographs, *The Times* of London raved, “You look through your stereoscope, and straightway you stand beside the fabled Nile, watching the crocodile asleep upon its sandy shore, with the superb ruins of Philae in the distance. The scene changes, and you are in the Desert....”(qtd. by Evans). Beginning in the 1870s, photographers based in Egypt such as G. Lekegian and J. Heyman & Co. produced stereographs, selling particularly to tourists. US publisher Underwood and Underwood made a boxed set of stereographs focusing on Egypt that William Darrah calls “the best stereo representation of the region ever published” (132).

James Henry Breasted’s Egypt through the Stereoscope

Egyptologist Dr. James Henry Breasted (1865-1935) was likewise impressed by the Underwood stereographs of Egypt: “Having seen the Oriental photographs of Mesrs. Underwood & Underwood, I am very glad to testify to their unusual beauty and value, and to assure the publishers that their collection offers to the purchaser a very vivid and adequate picture of the countries and peoples illustrated” (qtd. by Evans). Since Breasted was recognized as a leading expert on Egypt, Underwood sought his endorsement and invited him to write a guidebook to accompany a boxed

set of Egyptian stereoviews. Breasted came to the study of Egypt through his interest in religion. Skeptical about the historical accuracy of the Bible, Breasted went to Yale University to study Hebrew with William Rainey Harper. When Harper became president of the University of Chicago, he recruited Breasted to teach Egyptology in the university's department of biblical studies and sent him to study at the University of Berlin with noted Egyptologist Adolf Erman. Breasted received his Ph.D. from the University of Berlin in 1894, writing his dissertation on Pharaoh Akhnaten's hymns to the sun god. He and his new wife Francis Hart toured Egypt for their honeymoon in 1894, taking a two-month cruise along the Nile and stopping at historic sites along the way. Breasted returned to the US and became a faculty member at the University of Chicago and assistant director of its Haskell Oriental Museum. Breasted gave lectures about Egyptian history and culture throughout the US, which honed his ability to communicate with a non-academic audience. He built a reputation as the United States' leading Egyptologist with the publication of two works: *Ancient Records of Egypt* (1906-1907), a five-volume translation of historical inscriptions until 525 B.C., when the Persians first conquered Egypt; and *A History of Egypt* (1905), a chronological survey from prehistory to 525 B.C. He also published a popular textbook, *Ancient Times: A History of the Early World* (1916). Breasted made an important contribution to the field of ancient Near Eastern studies by establishing the University of Chicago's Oriental Institute, which became a leading research center (Van De Mieroop).



Title page to James Henry Breasted's *Egypt through the Stereoscope* (NY: Underwood and Underwood, 1905, 1908). From [TIMEA](#). (August 19, 2006).
<http://dspace.rice.edu/handle/1911/9166>

Breasted embraced the educational potential of stereographs, recommending “this system of stay-at-home travel” for accurately

reproducing the monuments and historic sites of Egypt and conveying viewers to the past (11). Even if people could not afford to travel to Egypt, Breasted said, they could enjoy “a vivid prospect” on 100 carefully selected sites, learn about Egypt, and become a “citizen of the world” (12, 13). As Evans notes, “He envisioned its benefits and great importance to stimulating interest in Egyptology and attracting young recruits. Underwood and Underwood also knew the attraction Egypt had, even more so in the Victorian age of Egyptomania.” Thus in 1901 Breasted agreed to write a guidebook for Underwood that would accompany a set of 100 stereoviews. Underwood asked Breasted to “...put what he has to say in the first person much as he would talk as if he could stand with a person in the presence of the actual places” (letter from Underwood and Underwood, July 31, 1901; qtd. by Evans). From the stereographs created by photographer Charles H. Baker, Breasted selected the 100 views that were included in Egypt through the Stereoscope and wrote the accompanying text, completing the 360 page book in 1905. In the introduction to *Egypt through the Stereoscope*, Breasted touted the ability of the stereoscope to make a distant place seem real and allow close study: “In the preparation of the following pages, I have constantly had my eyes within the hood of the stereoscope, and I cannot forbear to express here the growing surprise and delight, with which I observed as the work proceeded, that it became more and more easy to speak of the prospect revealed in the instrument, as one actually spread out before me. The surprising depth and atmosphere with which the scientifically constructed instrument interpreted what were actually but bits of paper and pasteboard, were a revelation; indeed, I constantly sat by an open window looking out over the actual ruins of the Nile Valley, which I could study, one after another, at will” (13). Breasted embraced the technology of stereoscopy, marveling at the way that carefully constructed devices could simulate distant monuments. As Evans notes, “Breasted was intensely interested in new methods and new techniques in recovering early chapters of man’s history, but chiefly in promoting a new attitude to and a new interpretation of the past.” In 1908, a second edition of Egypt through the Stereoscope and the accompanying stereocards were issued. Egypt through the Stereoscope and most of the accompanying stereographs are available through the TIMEA project.

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Strategies and Resources for Studying Stereographs

Although many in the nineteenth century believed that photographs mirrored reality, images exist within specific cultural, aesthetic, and historical contexts. The photographer makes a number of choices, such as what subject to photograph, what point of view to adopt, and what to include and what to leave out. As Graham Clarke argues, “Whenever we look at a photographic image we engage in a series of complex readings which relate as much to the expectations and assumptions that we bring to the image as the photographic subject itself. Indeed, rather than the notion of looking, which suggests a passive act of recognition, we need to insist that we read a photograph, not as an image but as a text. That reading (any reading) involves a series of problematic, ambiguous, and often contradictory meanings and relationships between the reader and the image” (27). Reading photographs and stereographs thus requires an active process of asking questions about how the image is composed and what it signifies.

Whether you are studying the history of photography or depictions of Egyptian daily life by Europeans, stereographs can furnish an important source of evidence for research projects. Social historians can use stereographs to study everything from tourism to social attitudes toward women to representations of warfare and disasters. For example, one could ask how women are portrayed in the photos—are they participating in the activities or simply observers? Important to the history of photography, stereographs reflect changing manufacturing and distribution processes. We can also approach stereographs as aesthetic objects, studying their composition, use of shadow and light, perspective, shape, and so forth. What angle you plan to take for your research project will determine the questions that you ask. Below are some possible directions that a research project using stereographs from the [TIMEA](#) project could take. Although the stereographs themselves are an important starting point for research, you can enrich your project by also examining other sources, including primary sources such as letters, books, and newspaper articles and secondary sources such as scholarly books and articles.

Research Questions

- Who produced the stereographs? Why were they produced? How were they produced? What is there to know about these companies? Their photographers? Were they involved with the Egyptian government, the British, or local tour guides?
- What technologies were used to make and distribute stereographs? How did those technologies change?
- Who used stereographs? Why? What did they make of them? Where and how were the images marketed and to whom?
- What kinds of scenes are represented? What are the themes of the images? Why were these particular places so important to the photographer, publisher and consumer?
- How were social customs such as the funeral processions, bazaars, and street scenes understood by the viewers (primarily Europeans and Americans)?
- How do the images relate to narrative accounts of travel in Egypt (also found in [TIMEA](#))?
- How is the image framed? What do you think is taking place outside of the frame of the image?
- How does the photographer use elements such as light, shapes and perspective?
- What effect did the marketing of 3-D Egypt have on tourism, in particular spots like, say, the Giza pyramids?
- How are human subjects depicted? How are they dressed? Are they posed? What kind of expressions do they have?
- What conclusions can you reach by the choice of subjects and how they are photographed?
- What are the significant details in the image?
- Compare several stereographs. Do you notice any patterns in how they are photographed and what details they include?
- What was the significance of being able to see an image in three dimensions? Did viewers think that such images were more “real”?
- What does the interest in stereographs say about the viewers?

(Thanks to [David Getman](#) and Pamela Francis for suggesting some of these questions.)

Viewing Stereographs

To appreciate stereographs, you need to view them in their full glory in three dimensions. There are several ways that you can view stereographs:

- Purchase a plastic stereoviewer for about \$3 from a store such as [Berezin Stereo Photography Products](http://www.berezin.com/3d/cardview.htm) (<http://www.berezin.com/3d/cardview.htm>). You can use this device to view stereographs on a computer screen, although you may need to make the window smaller. You can also print out and view the stereograph; try sizing it at about 4 x 7 inches.
- Find authentic stereoscopes from the nineteenth or early twentieth century on eBay or at antique stores (\$50 and up).
- Use freeviewing, which doesn't require a special instrument but does require you to cross your eyes slightly. If you can see the hidden images in MagicEye, you can probably freeview. Learn more about freeviewing at <http://stereographer.com/viewing.html>

Stereograph Archives (Online and Physical)

The best way to understand stereographs is to examine them directly so that you can scrutinize their details and get a sense of them as physical objects. To determine whether a library near you has stereographs, try searching for “stereograph” in WorldCat, which aggregates records from thousand of libraries. So that you only get records for primary sources, limit the type of search to “Archival Materials” and “Visual Materials.” You can also restrict your search to a particular library or to libraries in your area. Several institutions have provided online access to selections of their stereograph collections, including the Library of Congress and the Smithsonian Institution. You can also purchase original stereographs on web sites such as eBay and at antique stores; the cost of a stereograph can range from \$1 to over \$300.

Francis Frith Stereocards of Egypt. National Museum of Photography, Film and Television. 12 August 2006.

http://www.nmpft.org.uk/insight/collectiononline_selection.asp?exid=27

A selection of images from Frith's important 1862 book, *Egypt, Nubia and Ethiopia Illustrated*.

G. Eric and Edith Matson Photograph Collection. Library of Congress. 12 August 2006. [http://lcweb2.loc.gov/cgi-bin/query/S?pp/matpc:@field\(SUBJ+\(Stereographs\)\)](http://lcweb2.loc.gov/cgi-bin/query/S?pp/matpc:@field(SUBJ+(Stereographs))).

Includes over 4000 stereographs of the Middle East.

Keystone Mast Collection. University of California Riverside/California Museum of Photography. 12 August 2006.

<http://www.cmp.ucr.edu/mainFrame/collections/guides/kmast/>

The archive of the Keystone View Company (1892-1963), with 350,000 stereoscopic prints and negatives (only a fraction of that number are currently online).

Small Town America: Stereoscopic Views from the Robert Dennis Collection, 1850-1920. New York Public Library. American Memory. 12 August 2006.

<http://memory.loc.gov/ammem/award97/nyplhtml/dennhome.html>

Includes 12,000 images of New York, New Jersey, and Connecticut from the 1850s to the 1910s from the Robert N. Dennis Collection of Stereoscopic Views at the New York Public Library.

Stereographs Selection. Smithsonian Institution Research System. 12 August 2006. <http://siris.mmm.si.edu/siris/stereographtop.htm>

Includes the Underwood & Underwood Glass Stereograph Collection, consisting of 28,000 glass plate negatives.

Stereographs and Postcards. American Antiquarian Society. 12 August 2006. <http://www.americanantiquarian.org/stereographs.htm> [link]

The American Antiquarian Society has one of the leading stereograph collections in the US, with 50,000-60,000 stereographs.

Stereo Views. George Eastman House. 12 August 2006.
<http://www.geh.org/stereo.html>

Includes works by over 80 stereo photographers and publishers.

Stereoview cards from our Photo Archives. San Diego Historical Society. 12 August 2006.

<http://www.sandiegohistory.org/collections/stereocards/stereocard.htm>

Focuses on images of California.

Books, Articles and Online Resources

Few scholarly studies of stereographs have been published. To locate a book on stereography, search for a Library of Congress subject heading such as “Photography, Stereoscopic,” “Photography, Stereoscopic -- History,” or “Photography – history.” To find a book regardless of whether your library holds it, use [WorldCat](#). If your library does not own a work you need, you can probably request it through [interlibrary loan](#).

Clarke, Graham, *The Photograph*. Oxford: Oxford UP, 1997.

A good general work on photography, with sections on “reading” photographs, the history of photography, photographic technologies, and genres.

Darrah, William. *The World of Stereographs*. Gettysburg, PA: Darrah, 1977.

Especially useful for identify and categorizing stereograph. Full of details about how stereographs were made, the themes depicted in stereographs, and the publishers of stereographs.

Davis, Melody D. “An Essential Reprint in Stereography.” *Art Journal*, 57.3 (1998): 94-96. JSTOR.

In this review of William Darrah’s *The World of Stereographs*, Davis examines why stereographs have been more or less ignored by historians of photography and makes a case for their cultural significance.

Earle, Edward, ed. *Points of View: The Stereograph in America-A Cultural History*. Rochester, NY: Visual Studies Workshop Press, 1979.

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<http://mcclungmuseum.utk.edu/newresearch/stereoscope/stereoscope.htm>

Museum curator Elaine Evans examines the history of James Henry Breasted's interest in stereoscopy and the production of his Egypt through the Stereoscope.

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Analyzes how stereographs shaped how nineteenth-century Americans viewed the world.

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<http://stereographer.com/>

A contemporary stereographer has established a web site with information about stereograph viewers, cameras, and contemporary artists.

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Stereograph company Underwood and Underwood published a number of books promoting stereography, including a collection of essays on the subject by Oliver Wendell Holmes. Holmes' essay "The Stereoscope and the Stereograph," which was originally published in Atlantic Monthly (1859), is also available online at

<http://www.humanities.ualberta.ca/VIEW/Resources/Stereoscope.htm>

Long, Burke O. *Imagining the Holy Land: Maps, Models, and Fantasy Travels*. Bloomington: Indiana University Press, 2003.

This scholarly book examines reconstructions of the Holy Land by Americans and includes a chapter on stereographs.

Silverman, Robert. "The Stereoscope and Photographic Depiction in the 19th Century." *Technology and Culture* 34.4 (1993): 729-756. JSTOR.

Examines the technologies of stereography and the debate over the accuracy of representation and whether the human eye and imagination are superior to devices such as the stereoscope.

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American National Biography is an essential reference work for information about important Americans. There are also biographical reference works profiling people from other countries, such as the Oxford Dictionary of National Biography (focusing on British subjects), the Dictionary of German National Biography, and the Biographical Dictionary of Japanese History. For more on researching biography, see [Identifying Historical Figures: The Souvenir of Egypt](#).